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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,216	02/14/2002	Michael Alois Kolowski	DN2002024	7021

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EXAMINER	
MAKI, STEVEN D	

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/075,216	KOLOWSKI ET AL.	
	Examiner	Art Unit	
	Steven D. Maki	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1) A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10-29-04 has been entered.

2) Claims 17-32 are objected to because of the following informalities:

In claim 17 line 1, "A tread has" should be --A tread having--

In claim 29 line 1, "A tread has" should be --A tread having--

Appropriate correction is required.

3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

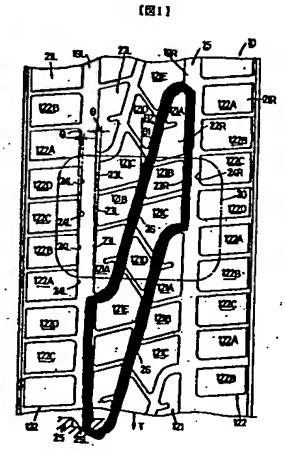
4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Japan '207

5) **Claims 17-18, 20, 23, 25, 26, 27, 29, 30 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan '207 (JP 6-135207).**

The claimed tread reads on the tread having the tread pattern shown in figure 1. The claimed central array reads on the "central array" comprising seven blocks 121A, 121B, 121C, 121D, 121E, etc. Japan '207 teaches delimiting the central array using slant grooves 26 and portions of grooves 19L, 19R. The slant grooves have oppositely curved end sections. The slant grooves 26 are inclined at inclined at an angle of 1-15 degrees with respect to the circumferential direction and the portions of grooves 19L, 19R are slightly inclined at an angle of for example 2 degrees. Figure 1 of Japan '207 is reproduced below with markings added by the examiner:



The markings added by the examiner indicate one of the central arrays of tread elements. As to claim 17, the arrays overlap. For example block 121A (a block at the end of one array) is adjacent a block 121D (a middle block of another array). As to

claim 29, Japan '207's teaching to taper the blocks adjacent grooves 19L, 19R at 2 degrees forms a shoulder groove as claimed.

As to the remaining claims: The circumferential ends of two adjacent slant grooves 26 are connected by a slightly inclined portion of a circumferential groove 19L, 19R. The claimed first boundary groove reads on the combination of one of the slant grooves 26 and the slightly inclined portion of one of the circumferential grooves (19L, 19R) extending from one end of the one slant groove to one end of the other slant groove. The claimed second boundary groove reads on the other slant groove 26 and the other of the slightly inclined portion of the circumferential grooves (19R, 19L) extending from the other end of the other slant groove to the other end of the one slant groove. The curved portion of slant groove 26 intersects the slightly inclined portion of the circumferential groove at an angle less than 90 degrees (an acute angle). As to curvilinear, note the oppositely curved portions of slant groove 26. Claim 23 fails to require the boundary grooves to be curvilinear throughout their length. The tread pattern in figure 1 is non-directional.

6) **Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '207**.

As to claims 21 and 22, it would have been obvious to use 10 or 15 tread elements in Japan '207's central array since Japan '207 shows forming a multitude of the blocks between the slant grooves.

Linder et al

7) **Claims 17-20, 23, 27 and 29-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Linder et al (US 4545415).**

Lindner et al discloses a tread having tread elements oriented into a first shoulder row, a second shoulder row and a central row wherein the central row comprises circumferentially repeating arrays of tread elements. Figure 2 of Lindner et al is reproduced below with markings added by the examiner. The markings added by the examiner indicate one of the central arrays of tread elements.

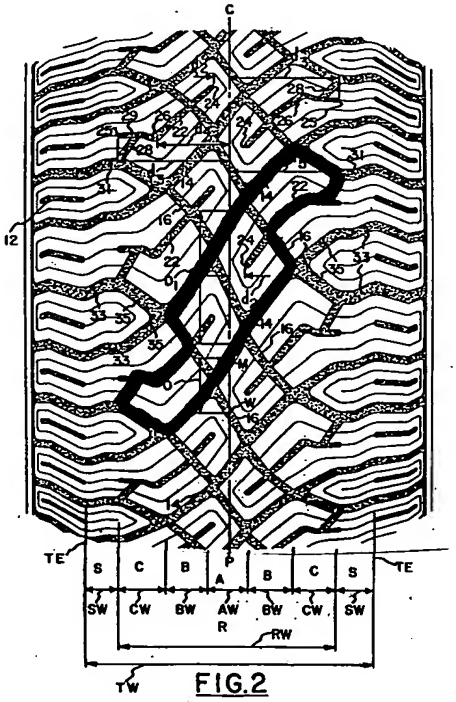


FIG.2

As to claim 17, the central arrays of tread elements overlap. See figure 2 of Lindner et al.

As to claims 18-20 and 23, each array is defined by an "upper boundary groove" and a "lower boundary groove" which connect at the axially outermost positions of the array where groove 16 and groove 28 intersect (each boundary groove comprises one of the connecting grooves 28). As to acute angle, Lindner et al teaches inclining the connecting groove 28 at 40-60 degrees and inclining groove 16 at 45-65 degrees at intermediate portion C. The "boundary grooves" therefore can form an angle of 85 degrees (an acute angle). As can be seen from figure 2, each array has smaller tread elements at the ends of the array. Also, the boundary grooves are non-linear / curvilinear. See figure 2 and col. 1 line 67 to col. 2 line 29.

As to claim 27, the figure 2 tread is non-directional as claimed.

As to claim 29, each side of the row of arrays is separated from the shoulder blocks by a "shoulder groove following an angled and inclined segment" of the side of the array. Lindner et al's "shoulder groove" is a zig-zag type groove generally similar for example to applicant's zig-zag groove in the figure 4 embodiment.

As to claims 30-32, note comments on claims 17-19.

8) **Claims 18, 19 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindner et al.**

Lindner et al is considered to anticipate claims 18, 19 and 31. In any event: it would have been obvious to form the claimed acute angle in Lindner et al's tread since

Lindner et al teaches inclining the connecting groove 28 at 40-60 degrees and inclining groove 16 at 45-65 degrees at intermediate portion C.

9) **Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lindner et al in view of Campos et al (US 4598748).**

As to claim 24, it would have been obvious to one of ordinary skill in the art to provide Lindner et al's tread with the claimed three or more distinct pitches since (1) the geometric pattern of the central array of Lindner et al repeats along the circumference of the tire and (2) Campos et al suggests using at least three different pitches for a repeating geometric pattern such as that shown in figure 1 to reduce noise (col. 1 lines 45-47, col. 3 lines 5-10).

Fontaine et al

10) **Claims 17-18, 20, 23, 25, 27 and 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Fontaine et al (US 4424843).**

The claimed tread is anticipated by the tread shown in figure 3. Figure 3 of Fontaine et al is reproduced below with markings added by the examiner:

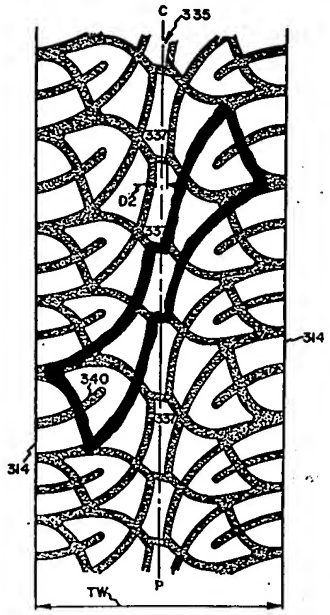


FIG. 3

The markings added by the examiner indicate one of the central arrays of tread elements.

11) **Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fontaine et al.**

As to claim 26, it would have been obvious to incline the grooves in Fontaine et al such that the centerline is inclined at an angle of less than 30 degrees in view of Fontaine et al's teaching to incline the grooves near the EP at an angle of not greater than 15 degrees (the illustrated inclination appears to be at 30 degrees)

12) **Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fontaine et al in view of Campos et al (US 4598748).**

As to claim 24, it would have been obvious to one of ordinary skill in the art to provide Fontaine et al's tread with the claimed three or more distinct pitches since (1) the geometric pattern of the central array of Fontaine et al repeats along the circumference of the tire and (2) Campos et al suggests using at least three different pitches for a repeating geometric pattern such as that shown in figure 1 to reduce noise (col. 1 lines 45-47, col. 3 lines 5-10).

13) **Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fontaine et al in view of Japan '607 (JP 4-193607).**

As to claim 28, it would have been obvious to one of ordinary skill in the art to provide the shoulder rows of Fontaine et al with different number of blocks without changing the central region and thereby make the tread pattern asymmetric since Japan '607 teaches using different number of blocks in shoulder rows without changing the

central region to provide the tire with good straight running performance (compare figures 2 and 4 and see abstracts).

Remarks

14) Applicant's arguments with respect to claims 17-32 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 10-29-04 have been fully considered but they are not persuasive.

Applicant's argument that Japan '207 shows an aligned rather than overlapping orientation is not persuasive since (1) none of claims exclude "aligning" the central arrays and (2) Japan '207's central arrays are overlapping as claimed. For example block 121A (a block at the end of one array) is adjacent a block 121D (a middle block of another array).

As to applicant's comment that Japan '207's arrays result in a straight line circumferential boundary groove, the examiner notes that Japan '207's teaching to taper the block at 2 degrees forms an irregular boundary groove condition and prevents the "shoulder groove" from having straight circumferential edges.

Applicant argues that the boundary grooves diverge instead of converge. Applicant is incorrect. The boundary grooves converge such that they intersect at the tip of block 121A.

15) No claim is allowed.

16) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
January 24, 2005

Steven D. Maki 1-24-05
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